Introduction to Safety Culture (v.2)

Safety Culture Terminology

Safety culture has two important aspects - processes that assure safety and value-based behavior.

Safety Assurance Processes

Designing a facility and planning a clean-up project both have similar processes to ensure safety. As specified in existing U.S. Department of Energy (DOE) guidance, among the first steps in facility design or in pre-project planning are to define all the anticipated risks and then ensure that the facility or project have eliminated these risks. A positive safety culture is ensuring that serious disasters do not and cannot occur by design. That requires thorough review and, as needed changes to designs to eliminate the disaster potentials and a constant need to reassess and challenge all aspect of the design, operating procedures, maintenance, and etc. through the entire life of the facility.

Risk elimination includes designing a facility that is inherently safe or planning project activities that can be conducted in a safe manner. These assurances include institutionalizing processes, such as following codes and safe practices. They can require conducting demonstrations; such as full scale testing of the pulse jet mixer or mock-ups for 324 hot spot removal. Inherent safety also means dealing with new risks that occur. DOE guidance on Integrated Safety Management provides the methodology to manage these risks. It also means institutionalizing processes to monitor risks, changed or changing conditions, knowledge and experience over time. This includes risks caused by degraded facilities, such as Waste Encapsulation Storage Facility.

Institutionalizing sound safety assurance processes are a key feature of safety culture. Not following these processes is a safety culture behavioral issue.

Value-Based Behavior

DOE has established definitions for Organizational Culture, Safety Culture and a Safety Conscious Work Environment. These address the behavior of organizations and its employees:

"**Organizational Culture**: A set of commonly shared beliefs, expectations, and values that influence and guide the thinking and behavior of organizational members, and are reflected in how work is carried out."

"**Safety Culture**: An organization's values and behaviors modeled by its leaders and internalized by its members, which serve to make safe performance of work the overriding priority to protect the workers, the public and the environment."

"**Safety Conscious Work Environment**: A work environment in which employees feel free to raise safety concerns to management (or a regulator) without fear of retaliation."

These definitions provide a description of expectations, but they raise the next set of questions: "What are the commonly shared beliefs, expectation, and values?" "What are the organization's values and behaviors?" "What defines the work environment in which employees feel free to raise safety concerns?"

By being more specific in providing the answers to these questions, the three definitions can be combined and simplified via a statement of the "**Principles of Value-Based Behavior**, i.e. those behaviors that create a positive safety culture."

Specifically:

- Care for each other's health and safety. (This ensure a safety conscious work environment. It drives safety including preventing accidents and avoiding health risks from beryllium and vapors.)
- Lead within your sphere of influence. (This embeds safety at all levels within the organization.)
- Practice open, listening communication. (This ensures active listening to ideas and concerns on design, risks and suggested improvements.)